REMARKS

Claims 1-32 are pending in the present application. Reconsideration of the application is respectfully requested.

In the Office Action, claims 1-32 were rejected under 35 U.S.C. § 103 as allegedly being obvious in view of the combination of Tran (U.S. Patent No. 6,455,362) and IBM Technical Disclosure Bulletin, December 1984, Vol. 27, Issue 7B ("IBM Bulletin"). Applicants respectfully traverse the Examiner's rejection.

As the Examiner well knows, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to

combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Health-care Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991; *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

Independent claim 1 requires, among other things, providing a substrate having partially formed thereon semiconductor devices, the devices comprising first and second sidewall spacers with first and second etch rates with respect to a specific etchant, whereby the first etch rate is lower than the second etch rate, implanting ions into the first sidewall spacers to adapt the first etch rate to the second etch rate, and removing the first and second sidewall spacers with the specific etchant, whereby a selectivity in removing the first and second sidewall spacers is increased by the implanting of the ions.

Independent claim 19 requires, among other things, providing a substrate having partially formed thereon semiconductor devices, the devices comprising first and second sidewall spacers with first and second etch rates to a specific etchant, whereby the first etch rate is lower than the second etch rate, implanting ions into the first and second sidewall spacers to increase the first and second etch rates, and removing the first and second sidewall spacers with the specific

etchant, whereby a selectivity in removing the first and second sidewall spacers is increased by the implanting of ions.

It is respectfully submitted that these independent claims, and all claims depending therefrom, are allowable over the prior art of record.

Applicants respectfully disagree with the Examiner's interpretation of Tran. Tran is directed to a method of forming double LDD implant regions in an access transistor of a memory device to reduce leakage currents and hot carrier effects. Col. 3, ll. 17-35. Tran discloses the formation of spacers 32, 34 adjacent the gates 16. Figure 4; Col. 7, ll. 23-25. The spacers 32, 34 may be formed from a variety of materials. Col. 7, ll. 25-27. Tran specifically notes that "the spacers 32, 34 are formed by deposition and then anisotropically etched to a first width w1 using dry etching techniques as is known in the art, such as Reactive Ion Etching (RIE)." Col. 7, ll. 27-31. In the Office Action, the Examiner seemed to indicate that the spacers 32, 34 are formed of different materials, *e.g.*, oxide and nitride. Office Action, pp. 2-3. Applicants respectfully disagree with this reading of Tran. As indicated above, the spacers 32, 34 are formed by a traditional deposition/anisotropic etch process. Tran provides additional evidence that the spacers 32, 34 are made of the same material. More specifically, Tran states that the "spacers 32, 34 are next reduced in size to second width w2.... This shrinking of the spacers 32, 34 is preferably accomplished by lateral or isotropically etching using a dry or wet etch, preferably with a wet etch, or using an equivalent method known in the art." Col. 8, ll. 43-51 (emphasis added). That is, a single etching process is performed to reduce the width or shrink both spacers 32, 34. Thus, it is clear that the spacers 32, 34 are not made of different materials, *e.g.*, oxide and nitride, as asserted by the Examiner.

In view of the foregoing, Tran also does not disclose first and second spacers with first and second etch rates with respect to a specific etchant, as recited in both independent claims 1 and 19. Additionally, as a result of this undeniable deficiency, Tran also does not disclose the step of implanting ions into the first sidewall spacer to adapt the first etch rate to the second etch rate, as set forth in claim 1. Tran also does not disclose the step of implanting ions into the first and second sidewall spacers to increase the first and second etch rates, as set forth in claim 19.

The IBM Bulletin cannot cure the fundamental deficiencies above in Tran.

It is respectfully submitted that the obviousness rejections are improper for several reasons. First, even if the art of record were combined in the manner suggested by the Examiner, the combination of art does not disclose each and every limitation of the claimed invention. Accordingly, the obviousness rejections are improper for this reason.

Moreover, there is no suggestion to modify the teachings of Tran so as to arrive at Applicants' invention. Tran is simply not concerned with the problem addressed by the currently claimed inventions. A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 143 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35. It is respectfully submitted that any attempt to assert that the inventions defined by independent claims 1 and 19 would have been obvious in view of the prior art of record necessarily involves an improper use of hindsight using Applicant's disclosure as a roadmap. Accordingly, it is believed that all claims are in condition for allowance.

In view of the foregoing, it is respectfully submitted that all pending claims are in condition for immediate allowance. The Examiner is invited to contact the undersigned attorney at (713) 934-4055 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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